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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/588,440

01/25/2007

David John Preston

07812.0061

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22852

7590

02/18/2009

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EXAMINER

WALCK, BRIAN D

ART UNIT

PAPER NUMBER

4181

MAIL DATE

DELIVERY MODE

02/18/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/588,440	<b>Applicant(s)</b> PRESTON ET AL.	
	<b>Examiner</b> Brian Walck	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 41-80 is/are pending in the application.
- 4a) Of the above claim(s) 58-80 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 41-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/25/2007</u> .   | 6) <input type="checkbox"/> Other: ____.                          |

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 41-57, drawn to a natural alkaline earth metal carbonate having a  $d_{50}$  of about 0.5  $\mu\text{m}$  or less and a moisture pick up of less than about 0.2 wt%.

Group II, claim(s) 58-63, drawn to a process for making alkaline earth metal to produce particulate material having  $d_{50}$  of about 0.5  $\mu\text{m}$  and surface area of less than 14  $\text{m}^2/\text{g}$ .

Group III, claim(s) 64-70, drawn to a process for making alkaline earth metal to produce particulate material having  $d_{50}$  of about 0.5  $\mu\text{m}$  and moisture pick up of less than 0.2 wt%.

Group IV, claim(s) 71-79, drawn to a polymer composition comprising a polymer material and a natural earth metal carbonate.

Group V, claim(s) 80, drawn to a cured element obtained by curing a polymer composition comprising a polymer material and a natural earth metal carbonate.

The inventions listed as Groups I-V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the groups lack a common special technical feature. The express "special technical features" is defined as meaning those technical features that define a contribution which each of the inventions, considered as a whole, makes over the prior art." (Rule 13.2).

Unity exists only when there is a technical relationship among the claimed inventions involving one or more of the same or corresponding claimed special technical features. In this case, the technical feature shared by each invention is a natural alkaline earth metal carbonate having a  $d_{50}$  of about 0.5  $\mu\text{m}$  or less.

The question of unity of invention has been reconsidered retroactively by the examiner in view of the search performed; a review of UK Patent Application GB 2383046 A reveals a natural calcium carbonate having a  $d_{50}$  greater than 0.3  $\mu\text{m}$  and less than 0.8  $\mu\text{m}$ . This makes clear that the inventions of the groups I-V lack the same or corresponding special technical feature because the cited reference(s) appear to demonstrate that the claimed technical feature does not define a contribution which each of the inventions, considered as a whole, makes over the prior art. Accordingly, the prior art of the record supports restriction of the claimed subject matter in to the groups as mentioned immediately above.

2. During a telephone conversation with Christopher Kant on 2/11/2009 a provisional election was made without traverse to prosecute the invention of group I, claims 41-57. Affirmation of this election must be made by applicant in replying to this Office action. Claims 58-80 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

4. The examiner has required restriction between product and process claims.

Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

***Information Disclosure Statement***

5. The information disclosure statement filed 1/25/2007 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because US-6,866,044 B2 is listed as having been invented by Nakai et al, but US-6,866,044 B2 was invented by Bardy et al and concerns a method of insertion and implantation of implantable cardioverter-defibrillator canisters. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

***Specification***

6. The disclosure is objected to because of the following informalities: various acronyms such as PVC, SPUR, and MS are used in the specification without defining what they mean.

Appropriate correction is required.

7. The use of the trademark SEDIGRAPH 5100 has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

***Claim Rejections - 35 USC § 103***

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**10. Claims 41-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over UK Patent Application GB 2383046 A to Paynter et al (hereinafter referred to as Paynter).**

Regarding claims 41-43, 48-50, Paynter discloses a natural calcium carbonate in particular form having a  $d_{50}$  of at least  $0.3\ \mu\text{m}$  and less than  $0.8\ \mu\text{m}$  (Paynter, page 5, lines 10-14) with a moisture pick up of less than about 0.1% by weight (Paynter, page 5, lines 1-3) and a total surface moisture content which is less than about 0.1% by weight (Paynter, page 5, lines 15-17). The disclosed moisture pick up of Paynter lies within the instantly claimed moisture pick up, the disclosed total surface moisture content of Paynter lies within the instantly claimed moisture pick up, and the disclosed range of  $d_{50}$  of Paynter overlaps the instantly claimed range of  $d_{50}$ . In the case where the claimed ranges “overlap or lie inside ranges disclosed by the prior art” a prima facie case of obviousness exists (see MPEP 2144.05 [R-5]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected values for the  $d_{50}$  that lie within the instantly claimed ranges because Paynter discloses the same utility throughout the disclosed ranges.

Regarding claims 44-47, Paynter discloses treating the calcium carbonate particles with a hydrophobising agent selected from the group including stearic acid, palmitic acid, montanic acid, capric acid, lauric acid, isotearic acid and cerotic acid (Paynter, page 7, lines 3-9).

Regarding claim 51, Paynter discloses a specific example where the calcium carbonate particles have a surface area of  $9.7\ \text{m}^2/\text{g}$  (Paynter, page 16, Table 1), which is less than about  $14\ \text{m}^2/\text{g}$ .

Regarding claim 52, Paynter discloses a specific example where the calcium carbonate particles have a surface area of  $9.7\ \text{m}^2/\text{g}$  (Paynter, page 16, Table 1), which



Art Unit: 1793

is at least **about**  $10 \text{ m}^2/\text{g}$ . In addition, although the surface area is only given for one specific example in Paynter which had a  $d_{50}$  of  $0.6 \text{ }\mu\text{m}$ , since specific surface area is inversely proportional to particle diameter, it is expected that some of the carbonate particles disclosed by Paynter with a  $d_{50}$  between  $0.3 \text{ }\mu\text{m}$  and  $0.6 \text{ }\mu\text{m}$  would have a surface area of greater than  $10 \text{ m}^2/\text{g}$ .

Regarding claim 53, Paynter discloses a specific example where the calcium carbonate particles have a surface area of  $9.7 \text{ m}^2/\text{g}$  (Paynter, page 16, Table 1), which is **about**  $12 \text{ m}^2/\text{g}$ . In addition, although the surface area is only given for one specific example in Paynter which had a  $d_{50}$  of  $0.6 \text{ }\mu\text{m}$ , since specific surface area is inversely proportional to particle diameter, it is expected that some of the carbonate particles disclosed by Paynter with a  $d_{50}$  between  $0.3 \text{ }\mu\text{m}$  and  $0.6 \text{ }\mu\text{m}$  would have a surface area of very close to  $12 \text{ m}^2/\text{g}$ .

Regarding claims 54-56, Paynter discloses that the metal carbonate used is calcium carbonate which may be obtained from grinding a natural source of marble, chalk, or limestone (Paynter, page 4, lines 12-14).

Regarding claim 57, Paynter discloses that the grinding process may be carried out in the absence of added hygroscopic or hydrophilic chemicals (Paynter, page 5, lines 25-27), so it is expected that the resulting carbonate will be essentially free of hygroscopic and hydrophilic chemicals.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Walck whose telephone number is (571)270-5905. The examiner can normally be reached on Monday-Friday 9 AM-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571)272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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